Gates Formed-Fibre Products, Inc.	**)**	**Departmental**
Androscoggin County	**)**	**Findings of Fact and Order**
Auburn, Maine	**)**	**Air Emission License**
A-678-71-A-N	**)**	**After-the-Fact**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Gates Formed-Fibre Products, Inc. (GFFP) of Auburn, Maine has applied for an Air Emission License permitting the operation of emission sources associated with their non-woven fiber products facility.

B. Emission Equipment

GFFP is authorized to operate the following equipment:

Fuel Burning Equipment

Equipment	**Maximum Capacity (MMBtu/hr)**	**Maximum Firing Rate (scf/hr)**	**Fuel Type, % sulfur**	**Stack #**
Space Heater #1	4.0	3810	natural gas, neg.	5
Space Heater #2	4.0	3810	natural gas, neg.	6
Molding Line K-2	4.0	3810	natural gas, neg.	2
Molding Line K-4	4.0	3810	natural gas, neg.	3
Oven Non-woven Line #1	3.0	2860	natural gas, neg.	1
Oven Non-woven Line #2	3.0	2860	natural gas, neg.	1
Oven Non-woven Line #3	2.0	1905	natural gas, neg.	1
Oven Non-woven Line #7	2.0	1905	natural gas, neg.	1
Molding Line #7	1.0	953	natural gas, neg.	4

C. Application Classification

On October 11, 1996, the Department notified GFFP that it would require a modeling analysis for their facility. Preliminary screening modeling performed by GFFP, however, indicated that controls may be needed to obtain the necessary modeling results. In lieu of a refined modeling analysis, GFFP in 1999 began to study the technical and economic feasibility of alternative approaches, which would

result in actual emission reductions and install emissions control equipment that will ensure emissions remain below modeling thresholds. The application for GFFP is treated as an existing source that is applying for its first Air Emission License. This source is determined to be a minor new source and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

Process Description

GFFP manufactures heat-bonded non-woven fiber matting for the automotive industry. Bales of polyester (PEst), polypropylene (PP), and polyethylene (PE) fibers, and rolls of thin PP sheeting are received and stored. The fiber is blended, transferred and stored using an air conveying system with internal dust collection. Blended fibers are blown to six carding lines, which create the non-woven cloth. The cloth is thermally bonded by partial fiber melting in ovens #1, 2, 3 and 7. Ovens #1, 2 and 3 are part of carding lines #1, 2, and 3. Oven #7 receives cloth from the other carding lines. Melting oven temperatures range from 300-450 °F. Carding lines #4, 5, and 6 supply rolled product to other vendors or to the ovens. A portion of the thermally bonded cloth is cut and thermally formed by five thermal forming ovens which first heat the cloth and then form it over a chilled mold. Forming oven temperatures are approximately 400 °F. Thermal bonding uses gas heat, while thermal forming uses both gas and electric heat.

GFFP manufactures four basic types of non-woven products:

Conform T – consisting of PEst fiber on top, and a mixed colored PP/PEst fiber blend on the bottom.

Conform II – consisting of PEst fiber on top, a thin PP sheet in the middle, and a PP/PEst fiber blend on the bottom.

Matform – consisting of a similar blend as Conform T, but in a lighter weight.

Taralock – consisting of PP fiber and PE fiber.

Package Tray – consisting of a lightweight PEst carpet and a PP sheet.

Ovens #1, 2, 3 and 7 are the primary sources of air emissions, and all four are constructed and operated similarly. The non-woven web from the carding operation enters the oven around a rotating, perforated drum. Hot air from a gas burner is drawn through the carpet and into the drum center. The hot air is partially re-circulated in the oven. The carpet is heated enough to cause partial melting of some of the fibers. This melting creates both web stiffness and strength. The melting process drives off both particulate and condensable oils. The droplets are liquid particulates of sub-micron size, and visible as a bluish haze. The hot web is cooled over chilled or air-cooled rolls and then collected on a reel or cut to sheets for subsequent thermal forming. GFFP will install a wet fiberbed scrubber controlling PM emissions by approximately 93% to meet BACT. GFFP shall conduct compliance testing for this control equipment within 60 days of installation.

B. Boiler Emission Sources
A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM_{10}, SO_2, NO_X, CO and VOC emission rates are based upon AP-42 factors dated 7/98 for natural gas combustion.

2. Visible emissions from each boiler shall not exceed 10% opacity on a six-minute block average basis. GFFP shall conduct compliance testing, using EPA Method 9, to demonstrate compliance with this opacity limit within 60 days of installation of the wet fiberbed scrubber control system.

C. Oven Emission Sources
A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM_{10}, SO_2, NO_X, CO and VOC emission rates are based upon stack test results performed by Calex Environmental in November 1998, plus an additional 25% to account for process variability, with a 93% pollution control factor.
2. GFFP shall install, operate and maintain a wet fiberbed scrubber system on the thermobonding ovens. The wet fiberbed scrubber system shall be installed and in operation no later than December 7, 2001.
3. Visible emissions from the fiberbed system shall not exceed 10% opacity on a six-minute block average basis. GFFP shall conduct compliance testing, using EPA Method 9, to demonstrate compliance with this opacity limit within 60 days of installation of the fiberbed control system.

D. Annual Emission Restrictions
GFFP shall be restricted to the following annual emissions, based on a 12-month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	5.4
PM_{10}	5.4
SO_2	0.1
NO_x	11.6
CO	9.8
VOC	3.3

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis.
Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

Based on the total facility emissions, GFFP is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Available Control Technology,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-678-71-A-N subject to the following conditions:

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.

(6) The license does not convey any property rights of any sort, or any exclusive privilege.

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

b. pursuant to any other requirement of this license to perform stack testing.

(ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(iii) submit a written report to the Department within thirty (30) days from date of test completion.

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

(iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and

conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Boiler Emission Sources

A. Fuel use shall not exceed 67 million scf/yr of natural gas on a 12-month rolling total. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

B. Visible emissions shall not exceed 10% opacity on a six-minute block average basis.

C. Emissions shall not exceed the following:

Equipment		**PM**	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**
Space Heater #8	lb/MMBtu	0.01	-	-	-	-	-
	lb/hr	0.03	0.03	0.01	0.39	0.32	0.03
Space Heater #9	lb/MMBtu	0.01	-	-	-	-	-
	lb/hr	0.03	0.03	0.01	0.39	0.32	0.03

(17) Oven Emission Sources

A. Fuel use shall not exceed 162 million scf/yr of natural gas on a 12-month rolling total. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

B. Emissions from the fiberbed system shall not exceed the following:

Pollutant	**lb/hr**
PM	1.19
PM_{10}	1.19
SO_2	0.07
NO_X	2.24
CO	1.84
VOC	0.69

(18) GFFP shall install, operate and maintain a wet fiberbed scrubber system on the thermo-bonding ovens. The wet fiberbed scrubber system shall be installed and in operation no later than December 7, 2001.

(19) GFFP shall complete initial performance testing no later than February 5, 2002, and shall submit test results to the Department within 30 days.

(20) GFFP shall operate the thermo-bonding ovens and/or molding lines only at times when the wet fiberbed scrubber is in operation.

(21) GFFP shall perform an initial stack test for PM and the EPA Reference Method 9 opacity readings no later than February 5, 2002.

(22) GFFP shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any air emission standard.

(23) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2001.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 10, 1996
Date of application acceptance: September 19, 1996

Date filed with the Board of Environmental Protection: _____

This Order prepared by Elisha McVay, Bureau of Air Quality.